

REMARKS

This Response is to the non-final Office Action dated September 2, 2010, and the telephone interview granted courteously to Applicants' representative on November 2, 2010. Claims 1 to 53 and 58 are pending. Claims 54 to 57 were previously canceled without disclaimer. Claims 1, 18, 33 and 44 have been amended herein for clarity and not to overcome the art of record or to disclaim any subject matter regarding same. No new matter has been added by these amendments. Support for these amendments can be found at, for example, page 5, lines 5 to 26 of Applicants' specification. Please charge Deposit Account No. 02-1818 for any fees owed in connection with this Response.

In the Office Action, claims 1 to 53 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 to 9, 13 to 25, 29 to 50 and 58 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,641,533 to Causey III et al. ("*Causey*") in view of U.S. Publication No. 2002/0038392 to De La Huerga ("*Huerga*"). Claims 10 to 12, 26 to 28, 51 to 53 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Causey*, in view of *Huerga* and further in view of U.S. Patent No. 6,795,421 to Heinonen et al. ("*Heinonen*").

Regarding the rejection of claims 1 to 53 under 35 U.S.C. §112, second paragraph, the Office Action at page 3 states that the recitation of "an input" in the clause "wait a predetermined amount of time for an input" of independent claims 1, 18, 33 and 44 renders claims 1 to 53 indefinite. Applicants respectfully disagree with this rejection. Applicants have nevertheless amended independent claims 1, 18, 33 and 44 by deleting the term "an input" and instead reciting, in part, "(i) sending a signal to the wireless communication link, (ii) waiting a predetermined amount of time for a response to the signal." These amendments have been made merely for clarity and not to overcome the art of record or to disclaim any subject matter regarding same. Applicants accordingly respectfully submit that the rejection of claims 1 to 53 under 35 U.S.C. §112, second paragraph, has been overcome and request withdrawal of such rejection.

Regarding the obviousness rejection of independent claim 1, independent claim 1 as presently presented is directed to a system for reporting on integrity of a wireless communication link within a healthcare facility including, in part:

software installed on the wireless remote device, the software configured to report upon the integrity of the wireless communication link by: (i) sending a signal to the wireless communication link, (ii) waiting a predetermined amount of time for a response to the signal sent to the wireless communication link, and (iii) generating a time-out output that indicates loss of the wireless communication link when the response is not received within the predetermined amount of time. (emphasis added).

Applicants respectfully submit that *Causey* and *Huerga*, alone and in combination, fail to disclose or suggest a system including software installed on a wireless remote device, the software configured to report upon the integrity of the wireless communication link by: (i) sending a signal to the wireless communication link (ii) waiting a predetermined amount of time for a response to the signal sent to the wireless communication link, and (iii) generating a time-out output that indicates loss of the wireless communication link when the response is not received within the predetermined amount of time.

During the interview, the Examiner seemed to suggest that the software installed on the wireless remote device of claim 1 as previously presented does not clearly recite how the software tests or reports on the integrity of the wireless communication link. While Applicants respectfully disagree, Applicants have nevertheless amended claim 1 herein to recite the language generally discussed during the interview. The software installed on the wireless device of present claim 1 reports upon the integrity of a wireless communication link by: (i) sending a signal to the wireless communication link (ii) waiting a predetermined amount of time for a response to the signal sent to the wireless communication link, and (iii) generating a time-out output that indicates loss of the wireless communication link when the response is not received within the predetermined amount of time. See, Applicants' specification, e.g., at page 5, lines 5 to 26.

The Office Action at page 4 acknowledges that *Causey* does not disclose a wireless remote device that includes software that (i) waits a predetermined amount of time for an input, and (ii) generates a time-out output that indicates a loss of wireless communication link. The Office Action at page 4 instead cites to *Huerga* for such disclosure. However, Applicants respectfully submit that *Huerga* does not disclose or suggest the system of claim 1 as presently presented including software installed on a wireless remote device configured to report upon the integrity of the wireless communication link by: (i) sending a signal to the wireless

communication link (ii) waiting a predetermined amount of time for a response to the signal sent to the wireless communication link, and (iii) generating a time-out output that indicates loss of the wireless communication link when the response is not received within the predetermined amount of time.

In particular, the Office Action at page 4 cites to paragraphs [0325] to [0327] and paragraphs [0041] and [0221] of *Huerga* for the disclosure of software configured to wait a predetermined amount of time for an input, and generate a time-out output that indicates loss of a wireless communication link when the input is not received in within the predetermined amount of time. Applicants respectfully disagree and submit that none of these paragraphs of *Huerga* (as discussed during the interview) disclose software installed on the wireless remote device that is configured to report upon the integrity of a wireless communication link by: (i) sending a signal to the wireless communication link, (ii) waiting a predetermined amount of time for a response to the signal sent to the wireless communication link, and (iii) generating a time-out output that indicates loss of the wireless communication link when the response is not received within the predetermined amount of time.

Instead, paragraphs [0325] to [0327] of *Huerga* disclose:

Referring again to FIG. 26, when an IV bag 140 is discontinued at controller 260 (e.g., stopping a corresponding infusion pump 100 or pump unit 108), controller 260 may monitor communication channel 255 for a status message indicating that the IV line 150 has been removed from pump 100 or pump unit 108 or a message indicating that pump 100 is being turned off. When controller 260 does not receive such a message within a period of time (e.g., 3 minutes), controller 260 may activate an audible alert indicating that the IV medication is still attached to pump 100 or pump unit 108 and might be administered again incorrectly to the patient. The physician can reset the alert by pressing a button 266 or by removing the discontinued IV line from pump 100 or pump unit 108 or by turning pump 100 off.

Similarly, when a pump is turned off or all medicants are removed from a pump, the change can be reported to the controller which may either disassociate from the pump or request confirmation that disassociation should be performed.

N. Pump Activation Without Communication With Controller 260.
(emphasis added).

The above-quoted paragraphs of *Huerga* teach a controller 260 that can monitor a communication channel 255 for a status message indicating that an IV line 150 has been removed from a pump. However, these paragraphs of *Huerga* do not teach or suggest the system of claim 1 as presently presented including software installed on the wireless remote device that generates a time-out output that indicates loss of a wireless communication link. Instead, controller 260 of *Huerga* can monitor a channel 255 for a status message that indicates that that the IV line 150 has been removed from pump 100 or from pump unit 108. If that status message is not received, then the controller may activate an alert that the IV line 150 is still attached to the pump.

Nothing in these paragraphs discloses or suggests generating a time-out output that indicates loss of the wireless communication link when a response to a signal is not received within a predetermined amount of time, as required by claim 1. Instead, the controller 260 of *Huerga* waits an amount of time for a status message that indicates that IV line 150 is removed from the pump 100. If no status message is received by the controller 260, the controller 260 may generate an alert that indicates that the IV line 150 is still attached to pump 100. Thus, if the status signal of *Huerga* is not received, it indicates that an IV line 150 is still attached to pump 100, but it does not indicate that there is a loss of a wireless communication link. In contrast, the system of claim 1 includes software that reports upon the integrity of a wireless communication link by (i) sending a signal to a wireless communication link (ii) waiting a predetermined amount of time for a response to the signal, and (iii) generating a time-out output that indicates loss of the wireless communication link when the response is not received within the predetermined amount of time.

Paragraph [0041] of *Huerga* discloses:

In one use of the controller, the badge records information from the wristband, the IV bag information device, and in some cases an identifier placed on the IV pump (or a pump module when the pump can be used with more than one line). All of this information is transferred to the controller (e.g. via wireless communication). The controller determines if the patient the IV bag is was dispensed for corresponds to the same patient that the controller was previously sent. IF there is a mismatch an error is indicated and the controller will not interact with the specified pump. When there is a match or the controller was not previously in communication with an IV pump, the controller establishes communication with the IV pump using the pump identifier, which

can be an RF address or frequency. Once in communication with the pump the controller determines if it is already running (manually started) and if the flow rate corresponds to that specified by the information device on the IV bag. If not or not within an acceptable range the controller presents an error. When the pump is not operating the controller transfers to the pump the dosing information received from the information device on the IV bag. (emphasis added).

Applicants respectfully submit that nothing in the above-quoted paragraph of *Huerga* discloses or suggests software installed on the wireless remote device of claim 1 that generates a time-out output that indicates loss of a wireless communication link. While the above-quoted paragraph of *Huerga* discloses a badge (e.g., PDA) that transfers information to a controller via wireless communication, nothing in the paragraph discloses or suggests that the badge includes software that generates a time-out output that indicates loss of a wireless communication link.

Paragraph [0221] of *Huerga* discloses:

The associating process may include a safety function wherein, when a change in infusion regimen is initiated at a pump unit (e.g., unit 108c), controller 260 requires confirmation that the change is requested by an authorized system user (e.g., a credentialed system operator). To this end, when such information is received by controller 260, controller 260 may provide a prompt requiring the user who initiated the change to identify herself. The prompt may include a blinking message via display 264 instructing the user to perform various authentication steps (e.g., instructions to place the physician's badge (see FIG. 3) proximate an RF field generated by controller 260 so that identifying information can be obtained). In addition, controller 260 may start a timer to time out a period during which authentication must be completed for controller 260 to authorize operation of the unit according to the changed protocol. Where authentication is not successfully completed within the time out period, it is contemplated that controller 260 would not allow the changed protocol to begin, may provide another message via display 266 indicating that the change would not occur and may also log the change attempt in a remote database for future consideration. (emphasis added).

Applicants respectfully submit that nothing in the above-quoted paragraph of *Huerga* discloses or suggests the system of claim 1 as presently presented including software installed on a wireless remote device that generates a time-out output that indicates loss of a wireless communication link. While the above-quoted paragraph of *Huerga* discloses that the controller

260 may wait for a response from a user of a pump to determine whether that user is authorized to make such a change to the pump, nothing in the paragraph discloses or suggests a wireless remote device that includes software that generates a time-out output that indicates loss of a wireless communication link.

For at least the above reasons, Applicants respectfully submit that independent claim 1 and its dependent claims 2 to 9 and 13 to 17 as presently presented are patentably distinguished over *Causey* and *Huerga*.

Independent claims 18, 33 and 44 as presently presented include similar elements to independent claim 1 as presently presented. Applicants accordingly respectfully submit that for at least the reasons given above with respect to independent claim 1 as presently presented, independent claims 18, 33 and 44 as presently presented and their respective dependent claims 19 to 25, 29 to 50, and 58 are patentably distinguished over *Causey* and *Huerga*.

The patentability of independent claims 1, 18, 33 and 44 renders the separate obviousness rejections of claims 10 to 12, 26 to 28 and 51 to 53 over *Causey*, *Huerga* and *Heinonen* moot.

For the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

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